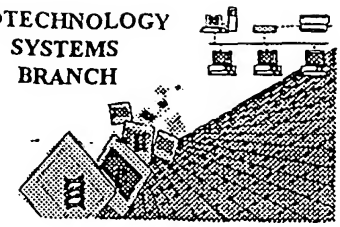
BIOTECHNOLOGY
SYSTEMS
BRANCH



ep

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/656,093
Source: OIPE
Date Processed by STIC: 9-16-03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>, **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. **Hand Carry directly to:**
   U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
   Or
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. **Federal Express, United Parcel Service, or other delivery service to:** U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 10/656,093

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1	Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor **after** creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2	Invalid Line Length	The rules require that a line **not exceed** 72 characters in length. This includes white spaces.
3	Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.
4	Non-ASCII	The submitted file was **not** saved in ASCII(DOS) text, as **required** by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**
5	Variable Length	Sequence(s)____contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6	PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**
7	Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for **each** skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.
8	Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. **If intentional**, please insert the following lines for **each** skipped sequence. <210> sequence id number <400> sequence id number 000
9	Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of **n** or **Xaa**, and which residue **n** or **Xaa** represents.
10	Invalid <213> Response	Per 1.823 of Sequence Rules, the only **valid** <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence
11	Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 07/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
12	PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13	Misuse of n/Xaa	"n" can **only** represent a single nucleotide; "Xaa" can **only** represent a single amino acid

OIPE

RAW SEQUENCE LISTING DATE: 09/16/2003
PATENT APPLICATION: **US/10/656,093** TIME: 10:48:00

Input Set : **A:\256-152div.txt**
Output Set: **N:\CRF4\09162003\J656093.raw**

```
      3 <110> APPLICANT: YOUNG, ANDREW A.
      4       VINE, WILL
      5       BEELEY, NIGEL R.A.
      6       PRICKETT, KATHRYN S.
      8 <120> TITLE OF INVENTION: INOTROPIC AND DIURETIC EFFECTS OF GLP-1 AND GLP-1 AGONISTS
     10 <130> FILE REFERENCE: 256-152DIV US
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/656,093
C--> 13 <141> CURRENT FILING DATE: 2003-09-05
     15 <160> NUMBER OF SEQ ID NOS: 75
     17 <170> SOFTWARE: PatentIn Ver. 2.1
     19 <210> SEQ ID NO: 1
     20 <211> LENGTH: 39
     21 <212> TYPE: PRT
     22 <213> ORGANISM: Heloderma horridum
     24 <220> FEATURE:
     25 <223> OTHER INFORMATION: Exendin-3
     27 <400> SEQUENCE: 1
     28 His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
     29   1               5                  10                  15
     31 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
     32              20                  25                  30
     34 Ser Gly Ala Pro Pro Pro Ser
     35          35
     38 <210> SEQ ID NO: 2
     39 <211> LENGTH: 39
     40 <212> TYPE: PRT
     41 <213> ORGANISM: Heloderma suspectum
     43 <220> FEATURE:
     44 <223> OTHER INFORMATION: Exendin-4
     46 <400> SEQUENCE: 2
     47 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
     48   1               5                  10                  15
     50 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
     51              20                  25                  30
     53 Ser Gly Ala Pro Pro Pro Ser
     54          35
     57 <210> SEQ ID NO: 3
     58 <211> LENGTH: 30
     59 <212> TYPE: PRT
     60 <213> ORGANISM: Homo sapiens
     62 <220> FEATURE:
     63 <223> OTHER INFORMATION: GLP-1
     65 <400> SEQUENCE: 3
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Does Not Comply
Corrected Diskette Needed

P. 4, 6

RAW SEQUENCE LISTING DATE: 09/16/2003
PATENT APPLICATION: **US/10/656,093** TIME: 10:48:00

Input Set : **A:\256-152div.txt**
Output Set: **N:\CRF4\09162003\J656093.raw**

```
66 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
67  1               5                  10                  15
69 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
70             20                  25                  30
73 <210> SEQ ID NO: 4
74 <211> LENGTH: 39
75 <212> TYPE: PRT
76 <213> ORGANISM: Artificial Sequence
78 <220> FEATURE:
79 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin or
80       exendin agonist
82 <220> FEATURE:
83 <221> NAME/KEY: MOD_RES
84 <222> LOCATION: (1)
85 <223> OTHER INFORMATION: His, Arg or Tyr
87 <220> FEATURE:
88 <221> NAME/KEY: MOD_RES
89 <222> LOCATION: (2)
90 <223> OTHER INFORMATION: Ser, Gly, Ala or Thr
92 <220> FEATURE:
93 <221> NAME/KEY: MOD_RES
94 <222> LOCATION: (3)
95 <223> OTHER INFORMATION: Asp or Glu
97 <220> FEATURE:
98 <221> NAME/KEY: MOD_RES
99 <222> LOCATION: (5)
100 <223> OTHER INFORMATION: Ala or Thr
102 <220> FEATURE:
103 <221> NAME/KEY: MOD_RES
104 <222> LOCATION: (6)
105 <223> OTHER INFORMATION: Ala, Phe, Tyr or naphthylalanine
107 <220> FEATURE:
108 <221> NAME/KEY: MOD_RES
109 <222> LOCATION: (7)
110 <223> OTHER INFORMATION: Thr or Ser
112 <220> FEATURE:
113 <221> NAME/KEY: MOD_RES
114 <222> LOCATION: (8)
115 <223> OTHER INFORMATION: Ala, Ser or Thr
117 <220> FEATURE:
118 <221> NAME/KEY: MOD_RES
119 <222> LOCATION: (9)
120 <223> OTHER INFORMATION: Asp or Glu
122 <220> FEATURE:
123 <221> NAME/KEY: MOD_RES
124 <222> LOCATION: (10)
125 <223> OTHER INFORMATION: Ala, Leu, Ile, Val, pentylglycine or Met
127 <220> FEATURE:
128 <221> NAME/KEY: MOD_RES
```

129 <222> LOCATION: (11)
130 <223> OTHER INFORMATION: Ala or Ser
132 <220> FEATURE:
133 <221> NAME/KEY: MOD_RES
134 <222> LOCATION: (12)
135 <223> OTHER INFORMATION: Ala or Lys
137 <220> FEATURE:
138 <221> NAME/KEY: MOD_RES
139 <222> LOCATION: (13)
140 <223> OTHER INFORMATION: Ala or Gln
142 <220> FEATURE:
143 <221> NAME/KEY: MOD_RES
144 <222> LOCATION: (14)
145 <223> OTHER INFORMATION: Ala, Leu, Ile, pentylglycine, Val or Met
147 <220> FEATURE:
148 <221> NAME/KEY: MOD_RES
149 <222> LOCATION: (15)...(17)
150 <223> OTHER INFORMATION: Ala or Glu
152 <220> FEATURE:
153 <221> NAME/KEY: MOD_RES
154 <222> LOCATION: (19)
155 <223> OTHER INFORMATION: Ala or Val
157 <220> FEATURE:
158 <221> NAME/KEY: MOD_RES
159 <222> LOCATION: (20)
160 <223> OTHER INFORMATION: Ala or Arg
162 <220> FEATURE:
163 <221> NAME/KEY: MOD_RES
164 <222> LOCATION: (21)
165 <223> OTHER INFORMATION: Ala or Leu
167 <220> FEATURE:
168 <221> NAME/KEY: MOD_RES
169 <222> LOCATION: (22)
170 <223> OTHER INFORMATION: Phe, Tyr or naphthylalanine
172 <220> FEATURE:
173 <221> NAME/KEY: MOD_RES
174 <222> LOCATION: (23)
175 <223> OTHER INFORMATION: Ile, Val, Leu, pentylglycine, tert-butylglycine or Met
177 <220> FEATURE:
178 <221> NAME/KEY: MOD_RES
179 <222> LOCATION: (24)
180 <223> OTHER INFORMATION: Ala, Glu or Asp
182 <220> FEATURE:
183 <221> NAME/KEY: MOD_RES
184 <222> LOCATION: (25)
185 <223> OTHER INFORMATION: Ala, Trp, Phe, Tyr or naphthylalanine
187 <220> FEATURE:
188 <221> NAME/KEY: MOD_RES
189 <222> LOCATION: (26)

RAW SEQUENCE LISTING DATE: 09/16/2003
PATENT APPLICATION: US/10/656,093 TIME: 10:48:00

Input Set : A:\256-152div.txt
Output Set: N:\CRF4\09162003\J656093.raw

```
190 <223> OTHER INFORMATION: Ala or Leu
192 <220> FEATURE:
193 <221> NAME/KEY: MOD_RES
194 <222> LOCATION: (27)
195 <223> OTHER INFORMATION: Ala or Lys
197 <220> FEATURE:
198 <221> NAME/KEY: MOD_RES
199 <222> LOCATION: (28)
200 <223> OTHER INFORMATION: Ala or Asn
202 <220> FEATURE:
203 <221> NAME/KEY: MOD_RES
204 <222> LOCATION: (31)
205 <223> OTHER INFORMATION: Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine
206       N-alkylpentylglycine or N-alkylalanine
208 <220> FEATURE:
209 <221> NAME/KEY: MOD_RES
210 <222> LOCATION: (36)..(38)
211 <223> OTHER INFORMATION: Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine
212       N-alkylpentylglycine or N-alkylalanine
214 <220> FEATURE:
215 <221> NAME/KEY: MOD_RES
216 <222> LOCATION: (39)
217 <223> OTHER INFORMATION: Ser, Thr, Tyr, Pro, homoproline, 3Hyp, 4Hyp, thioproline,
218       N-alkylglycine, N-alkylpentylglycine or N-alkylalanine
220 <220> FEATURE:
221 <223> OTHER INFORMATION: provided no more than three of Xaa3, Xaa5, Xaa6, Xaa8,
222       Xaa10, Xaa11, Xaa12, Xaa13, Xaa14, Xaa15, Xaa16, Xaa17,
223       Xaa19, Xaa20, Xaa21, Xaa24, Xaa25, Xaa26, Xaa27 or Xaa28
224       are Ala; and the compound is not exendin-3 or exendin-4
226 <220> FEATURE:
227 <223> OTHER INFORMATION: this peptide may encompass 28-39 residues, wherein
228       residues 1-28 are constant and residues 29-39 may vary
229       in length according to the specification
231 <400> SEQUENCE: 4
W--> 232 Xaa Xaa Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
233   1               5                  10                  15
235 Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
236             20                  25                  30
238 Xaa Xaa Xaa Xaa Xaa Xaa Xaa
239          35
241 <210> SEQ ID NO: 5
242 <211> LENGTH: 30
243 <212> TYPE: PRT
244 <213> ORGANISM: Artificial Sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin or
248       GLP-1 agonist
250 <220> FEATURE:
251 <223> OTHER INFORMATION: C-term may be amidated
```

Invalid see item 5 on error summary sheet.

RAW SEQUENCE LISTING DATE: 09/16/2003
PATENT APPLICATION: US/10/656,093 TIME: 10:48:00

Input Set : A:\256-152div.txt
Output Set: N:\CRF4\09162003\J656093.raw

```
253 <400> SEQUENCE: 5
254 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
255   1               5                  10                  15
257 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly
258              20                  25                  30
261 <210> SEQ ID NO: 6
262 <211> LENGTH: 28
263 <212> TYPE: PRT
264 <213> ORGANISM: Artificial Sequence
266 <220> FEATURE:
267 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin or
268       GLP-1 agonist
270 <220> FEATURE:
271 <223> OTHER INFORMATION: C-term amidated
273 <400> SEQUENCE: 6
274 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
275   1               5                  10                  15
277 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
278              20                  25
281 <210> SEQ ID NO: 7
282 <211> LENGTH: 28
283 <212> TYPE: PRT
284 <213> ORGANISM: Artificial Sequence
286 <220> FEATURE:
287 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin or
288       GLP-1 agonist
290 <220> FEATURE:
291 <223> OTHER INFORMATION: C-term amidated
293 <400> SEQUENCE: 7
294 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
295   1               5                  10                  15
297 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
298              20                  25
301 <210> SEQ ID NO: 8
302 <211> LENGTH: 28
303 <212> TYPE: PRT
304 <213> ORGANISM: Artificial Sequence
306 <220> FEATURE:
307 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin or
308       GLP-1 agonist
310 <220> FEATURE:
311 <223> OTHER INFORMATION: C-term amidated
313 <400> SEQUENCE: 8
314 His Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
315   1               5                  10                  15
317 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
318              20                  25
321 <210> SEQ ID NO: 9
322 <211> LENGTH: 28
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/16/2003
PATENT APPLICATION: US/10/656,093 TIME: 10:48:01

Input Set : A:\256-152div.txt
Output Set: N:\CRF4\09162003\J656093.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 1,2,3,5,6,7,8,9,10,11,12,13,14,15,16,17,19,20,21,22,23,24
Seq#:4; Xaa Pos. 25,26,27,28,29,30,31,32,33,34,35,36,37,38,39
Seq#:47; Xaa Pos. 31,36,37,38
Seq#:48; Xaa Pos. 36,37,38
Seq#:49; Xaa Pos. 31
Seq#:50; Xaa Pos. 31,36,37
Seq#:51; Xaa Pos. 31,36,37
Seq#:52; Xaa Pos. 31,36
Seq#:55; Xaa Pos. 6
Seq#:59; Xaa Pos. 10
Seq#:60; Xaa Pos. 22
Seq#:61; Xaa Pos. 23
Seq#:65; Xaa Pos. 31,36,37
Seq#:66; Xaa Pos. 19
Seq#:67; Xaa Pos. 17
Seq#:75; Xaa Pos. 29

VERIFICATION SUMMARY DATE: 09/16/2003
PATENT APPLICATION: **US/10/656,093** TIME: 10:48:01

Input Set : **A:\256-152div.txt**
Output Set: **N:\CRF4\09162003\J656093.raw**

L:12 M:270 C: Current Application Number differs, Replaced Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
M:341 Repeated in SeqNo=4
L:1131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:16
M:341 Repeated in SeqNo=47
L:1162 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:32
L:1187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:16
L:1220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:16
M:341 Repeated in SeqNo=50
L:1253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:16
M:341 Repeated in SeqNo=51
L:1286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:16
M:341 Repeated in SeqNo=52
L:1354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0
L:1439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0
L:1467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:16
L:1492 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:16
L:1585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:16
M:341 Repeated in SeqNo=65
L:1635 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:16
L:1642 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:67
L:1673 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:16
L:1878 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:16